"PATENT" Attorney Docket No.: P5502

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of: Munoz et al.

Serial No. 09/316,725

Filed: May 21, 1999

For: A METHOD OF DETERMINING TASK COSTS FOR ACTIVITY BASED COSTING MODELS

Examiner: Thomas A. Dixon

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APPEAL BRIEF

REAL PARTY IN INTEREST

The application is assigned to The Whittier Group, 4011 Meadows Lane, Street 102, Las Vegas, Nevada 89107.

RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

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STATUS OF CLAIMS

Claims 1-4, 6-23 and 25-28 stand rejected and appealed. Claims 5 and 24 were cancelled previously. Only claims 1 and 28 are independent. The claims are set forth in the APPENDIX hereto.

STATUS OF AMENDMENTS

There have been no amendments filed subsequent to final rejection.

SUMMARY OF CLAIMED SUBJECT MATTER

The present invention as claimed is directed to a method of determining the costs for performing tasks in a service business, specifically in the healthcare fields. For instance, summarizing independent claims 1 and 28 in very simple terms, the claims include the steps of:

(1) generating a list of healthcare tasks (see e.g., specification, page 14, lines 7-16 and page 20, lines 1-3),

(2) determining the time it takes to perform those healthcare tasks (see e.g., specification, page 16, lines 2-6),

(3) multiplying the time periods by labor rates to obtain a labor cost (see e.g., specification, page 16, lines 11-12),

(4) determining an overhead cost (see e.g., specification, page 16, lines 15-19),

(5) storing the two values on a computer memory (see e.g., specification, page 20, lines 7-8, and claims 5 and 24 (original and in Amendment A)), and

(6) adding them together to obtain a total cost using the computer's processor (see e.g., specification, page 17, lines 1-2).

It is the second step that raises the issues for this appeal. Without close analysis, it

appears that a doctor or nurse is not limited to any specific physical motions when administering medical treatment while performing tasks in the healthcare field such as medical operations, physical examinations by a doctor, etc. Thus, many different ways of examining a patient or performing the same operation exist. For instance, for a general practice MD, the individual motions and parts of each examination will change depending on the medical problem of the patient as well as the physical positioning of the patient during the exam. The doctor is not required to perform tasks in an examination in any particular order. Even administering the same treatment, such as giving injections, will vary depending on the dimension, physical condition and positioning of the patient for the shot. A nurse typically is not substantially limited to a set of physical motions or positioning for the location of the shot.

A method of task time analysis called Maynard Operation Sequence Technique (MOST) was used as early as 1974. MOST is a refined version of Predetermined Motion Time Systems (PMTS). The MOST method of timing tasks includes breaking down and listing all of the separate physical motions required to perform a task, timing each motion separately, and then adding together all of the times of the motions required for each task to obtain a total time to perform that task. This method was thought only to be applicable to manufacturing and factory jobs where the same short task is performed with very high repetition. Thus, it applies when a person is doing the same exact thing over and over again, such as in the construction field (e.g., hammering) or factory jobs (e.g., on an assembly line).

Even though MOST and timing methods like it that break tasks into each physical motion have existed for about 25 years, MOST has not been successfully applied to the healthcare field until the present applicants decided to see if it would work despite the weight of the assumptions that it would not. Breaking down the healthcare tasks into small physical motions, then timing

those motions and totaling them up to find the time of a healthcare task is surprisingly successful.

To capture this aspect of the invention, both claims 1 and 28 recite the following method step:

> said human operator using an operator independent method of task time measurement based on independently timing each motion in a procession of motions required to perform said healthcare task without timing from a beginning of said healthcare task to an end of said healthcare task a human performing said healthcare task;

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

1 Whether claims 1, 3, 4, 6, 7, 8, 11-13, 16, 21-23, 25-28 are patentable over LeVander (U.S. Pat. No. 6,216,108) in view of Conway (U.S. Pat. No. 5,732,401) and an article by Dossett (Industrial Engineering Journal *"Work Measured Labor Standards – The state of the art"*) under 35 U.S.C. §103.

2. Whether claims 2 and 14 are patentable over LeVander in view of Conway and Dossett and further in view of Isherwood (U.S. Pat. No. 5,918,219) under 35 U.S.C. §103.

3. Whether claims 15, 17-20 are patentable over LeVander in view of Conway and Dossett and further in view of Dangat et al. (U.S. Pat. No. 5,971,585) under 35 U.S.C. §103.

4. Whether claims 9-10 are patentable over LeVander in view of Conway and Dossett and further in view of Nick (U.S. Pat. No. 6,009,406) under 35 U.S.C. §103.

ARGUMENT

DESCRIPTION OF THE MAIN REFERENCES

LeVander (U.S. Pat. No. 6,216,108) discloses a computer system for establishing construction contracts and includes a system for cost estimates (see col. 3, lines 51-57, and col.

4, lines 1-8). It uses historical data or industry standards to establish the labor costs (see col. 4, lines 5-6; col. 8, line 22; col. 9, lines 2-3). "Historical data" and "industry standards" refers to measurement of the time it takes an operator to complete a process (work time measurement) as is well known in business and construction industries. Since the basis of these measurements is the timing of a particular individual or group of individuals to complete a process, the methods referred to are merely operator dependent.

As disclosed in the present application, such operator dependent methods are based on historical norms or standards that are inaccurate to a degree which is unacceptable to many businesses (see page 3, lines 4-9 in the present application). For work time measurement, historical date, as used in LeVander, is manipulated to estimate or extrapolate time values for similar or unknown processes (see col. 8, lines 21-28). In other words, the time measurement methods in LeVander do not refer to the exact actions taken by an operator. For example, in a construction process, there may be a set rate for constructing wood frames for walls without the knowledge of whether it is built using hammers or nail guns. Such a system really only "estimates" the time required rather than determining the actual time it will take to do a specific task. Thus, such timing methods can be very inaccurate.

Conway (U.S. Pat. No. 5,732,401) discloses task time measurement in the medical fields (see Fig. 2, Abstract and col. 1, lines 4-7). Conway discloses the use of total time studies by timing how long a particular individual is in a room assigned to a particular task. For example, the method includes timing how long a doctor or nurse remains inside an operating room reserved for a particular type of surgery (see e.g. col. 2, lines 33-45).

Dossett (Industrial Engineering Journal *"Work Measured Labor Standards – The state of the art"*) discloses a variety of time measurement methods and describes the reasons for using

each one. It discloses MOST and that the MOST system and PMTS are motion analysis techniques that should be used for measuring short, repetitive tasks ("short-cycle, high repetitive tasks") (see page 2, lines 8-25; page 3, line 14).

I. No Motivation Exists to Combine the Cited References Because the Cited References Teach Away from Each Other and the Claimed Features

No motivation exists to modify LeVander with either of the Dossett or Conway references. "It is improper to combine references where the references teach away from their combination." MPEP 2145 X.D.2 (*citing In re Grasselli*, 713 F.2d 731, 743, 218 USPQ 769, 779 (Fed. Cir. 1983)).

The Examiner adds Conway to add "healthcare" to LeVander. However, "A prior art reference must be considered in its entirety, i.e. as a whole, including portions that would lead away from the claimed invention." MPEP 2141.02 (*citing W.L.Gore & Assoc., Inc. v. Garlock, Inc.* 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983)).

As mentioned above, Conway teaches that in order to time a healthcare task, one should time when a medical person enters or leaves a room, rather than time the individual tasks or motions in the room (such as in LeVander), when it is known what particular task (or medical operation) is being performed in that room. In other words, only the duration of an entire known operation or procedure is timed (col. 2, lines 33-45). Thus, Conway teaches directly against LeVander which at least teaches timing of a person actually performing a task rather than mere room entry or exit.

Conway also teaches directly against the present invention which claims the timing of individual motions to obtain an operator independent method of timing tasks. Conway emphasizes exactly what applicants have been asserting: that it was previously thought to be

pointless to time the exact motions of medical procedures before this invention. This **strongly** supports the notion that the applicants acted against accepted wisdom to develop their invention. "The totality of the prior art must be considered, and proceeding contrary to accepted wisdom in the art is evidence of nonobviousness." MPEP 2145 X.D.3. (*citing In re Hedges*, 783 F.2d 1038, 228 USPQ 685 (Fed. Cir. 1986)). Thus, the Examiner cannot ignore this teaching when modifying LeVander. To remove this teaching from Conway to simply obtain the conclusion that healthcare tasks can be timed for efficiency is to practically ignore the entire disclosure of Conway. This is clearly against the patent laws and regulations.

Regarding Dossett, the Examiner uses Dossett to add the MOST timing system mentioned above and cites Dossett for disclosing that MOST should be used for short cycle, highly repetitive tasks (see Dossett, page 2, lines 8-25; page 3, line 14). However, nowhere in the references is it taught that motions used to perform healthcare tasks have short cycle, high repetitivity. The Examiner is improperly using hindsight to come up with this conclusion when in fact the accepted wisdom in the industry is exactly the opposite. Thus, Dossett actually teaches away from using MOST for healthcare based on accepted wisdom in the industry, especially when that wisdom is implied by the Examiner's own reference: Conway.

For these reasons, that neither Conway nor Dossett nor both can be combined with LeVander to derive the presently claimed invention, Applicants submit that the §103 rejection of claim 1 and 28, and their depending claims 3, 4, 6-8, 11-13, 16, 21-23, and 25-27 based on LeVander in view of Dossett and Conway has been overcome, and respectfully request that the §103 rejection of these claims be withdrawn.

II. No Motivation Exists to Combine the Cited References Because None of the Cited References Disclose the Desirability of the Combination

"The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination." MPEP 2143.01 (*citing In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990)). The motivation must be found in "the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons skilled in the art." MPEP 2143.01 (*citing in re Rouffet*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-58 (Fed. Cir. 1998)).

Each of the three references cited by the Examiner discloses a different method of timing tasks as mentioned above: (1) LeVander times entire tasks and uses traditional historical data, (2) Conway discloses timing of room entry and exit – presumably because it is too difficult to time the healthcare tasks performed in the room, and (3) Dossett discloses MOST for use of short cycle, highly repetitive tasks. The Examiner does not provide a detailed or specific motivation for combining the references other than stating it is obvious to combine the references "for the benefit of efficiently determining the actual cost of procedures and determining the particular efficiency of a particular caregiver" (Final Office Action of May 4, 2004 (paper no. 22), page 4, 5th full paragraph).

This is a vague, general motivation that can apply to any task timing method and offers no specific reason for combining the references. All task timing methods are used for improving "efficiency" in estimating costs; that is one of the main purposes of these methods.

In addition, LeVander does not itself explicitly or inherently disclose any "problem" that can be solved by the other two cited references. Nor do the other two references clearly disclose an improvement of LeVander. As already discussed above, Conway discloses that if healthcare

tasks are involved, a different timing method should be used than that disclosed by LeVander. Dossett simply discloses an alternative task time method to be used instead of the teaching in LeVander for short cycle, high repetitive tasks. Thus, these three references are merely alternatives to each other and do not disclose or suggest that they actually complement each other in any way. Therefore, no reason exists in any of these references that disclose or suggest the desirability to combine the three references to derive the present invention. The Examiner **MUST** reveal a specific motivation from the references to combine them and has not done so.

Finally, Applicants would like the record to note that the Examiner used a further reference simply as an example but did not want to enter the reference "as part of the rejection" (see Office Action of May 4, 2004, page 1 and the Advisory Action, page 2). The Examiner attempted to argue that the 1950s book/movie "Cheaper by the Dozen" by Gilbreth discloses that the use of MOST or timing of motions in the healthcare field existed before applicants use. Applicants merely wish the record to note the Examiner is incorrect, and this reference supports the Applicant's position. Gilbreth discloses the timing of an entire operation (tonsillectomies) from start to finish, not the timing of individual motions as claimed, and not even the timing of separate tasks. Motions in the movie and book were observed in order to eliminate what appeared to be wasteful motions but the individual motions were never timed separately (see Frank Gilbreth Jr. et al., *Cheaper by the Dozen*, pages 88-90). This provides yet another example showing that no one saw the point of timing individual motions in the healthcare fields as claimed.

For these additional reasons, Applicants submit that the §103 rejection of claims 1 and 28, and the rejections of their depending claims 3, 4, 6-8, 11-13, 16, 21-23, and 25-27 based on LeVander in view of Dossett and Conway has been overcome, and respectfully request that the

§103 rejection of these claims be withdrawn.

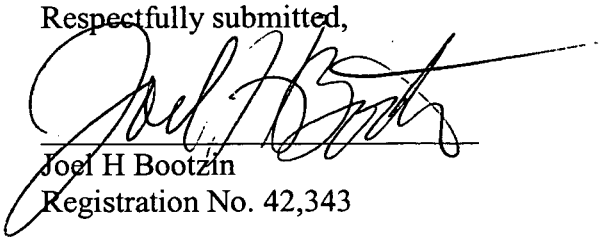
Claims 2 and 14 stand rejected under 35 U.S.C. §103 as being obvious to LeVander (U.S. Pat. No. 6,216,108) in view of Conway (U.S. Pat. No. 5,732,401) and Dossett and Isherwood (U.S. Pat. No. 5,918,219). Claims 15, 17-20 stand rejected under 35 U.S.C. §103 as being obvious to LeVander (U.S. Pat. No. 6,216,108) in view of Conway (U.S. Pat. No. 5,732,401) and Dossett and Dangat et al. (U.S. Pat. No. 5,971,585). Claims 9-10 stand rejected under 35 U.S.C. §103 as being obvious to LeVander (U.S. Pat. No. 6,216,108) in view of Conway (U.S. Pat. No. 5,732,401) and Dossett and Nick (U.S. Pat. No. 6,009,406).

In response to all of the other rejections listed as grounds of rejection 2-4 above, these claims all depend directly or indirectly from claims 1 or 28, and therefore include all of the features from claims 1 or 28 plus other features. Thus, Applicants repeat the arguments from above that LeVander, Conway and Dossett nor the other cited references: Isherwood, Dangat and Nick, alone or in combination, disclose or suggest separate timing motions of healthcare tasks to determine the duration of the healthcare task as recited in claims 1 and 28. For these reasons, Applicants submit that the §103 rejection of claims 2, 9, 10, 14, 15, and 17-20 based on LeVander in view of Dossett and Conway and the other cited references has been overcome, and respectfully request that the §103 rejection of these claims be withdrawn.

For the foregoing reasons, it is submitted that the claims are allowable as now presented, and early and favorable treatment of this application is requested.

Accompanying this Appeal Brief is the appropriate fee and a petition for a one month extension of time and fee. However, the Director is hereby authorized to charge any deficiency, including, but not limited to the Appeal Brief filing fee and the time extension fee, to Deposit Account No. 18-2284 of DLA Piper Rudnick Gray Cary US LLP, duplicate copy attached.

Respectfully submitted,



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APPENDIX

1. (previously amended) A method of performing costing of tasks including healthcare activities, said method comprising the steps of:

a) establishing a list of healthcare tasks involved in a work process wherein at least one of said healthcare tasks involves execution by a human operator;

b) said human operator using an operator independent method of task time measurement based on independently timing each motion in a procession of motions required to perform said healthcare task without timing from a beginning of said healthcare task to an end of said healthcare task a human performing said healthcare task;

c) establishing a first cost component of each healthcare task as a function of the expected time of execution of said healthcare task and the cost per unit time for said human operator;

d) establishing a second cost component of each healthcare task dependent on non-labor costs of the process, a portion of each non-labor cost being apportioned to said healthcare task as a function of the time of execution of said healthcare task by said human operator, machine operating time or other relative consumption of a resource;

e) maintaining the expected time to complete said activities and the cost per unit time of said operator in a memory of a computer; and

f) calculating a task cost independent of the efficiency of the human operator using a processor of said computer including the step of summing the first and second components for the healthcare task to establish the cost of the healthcare task.

2. (original) A method according to Claim 1 wherein the operator independent

method of task time measurement is a predetermined motion time system.

3. (original) A method according to Claim 2 wherein the operator independent method of task time measurement is the Maynard Operation Sequence Technique.

4. (previously amended) A method according to Claim 1 wherein the healthcare tasks comprise activities of a service business.

Claim 5 was previously cancelled, without prejudice.

6. (previously amended) A method in accordance with Claim 1 wherein said healthcare tasks involved in said work process are executed by two or more different human operators.

7. (previously amended) A method in accordance with Claim 1 wherein the healthcare tasks together form the work process, said method further comprising the step of:

f) summing the costs of the healthcare tasks in said process to give a process cost, and utilizing the process cost to determine the cost of the work process.

8. (previously amended) A method in accordance with Claim 7 wherein the costs in the work process comprise the costs associated with a business unit.

9. (previously amended) A method in accordance with Claim 7 wherein the costs in

the work process comprise business line costs of a business line.

10. (previously amended) A method according to Claim 9 wherein the business line costs and the revenue brought in by the business line are used to calculate the profitability of the business line, which is in turn used to correctly price the business line.

11. (previously amended) A method according to Claim 7 wherein said work process is a proposed work process, and the process cost is used to determine the economic outcome of a business decision before it is implemented.

12. (previously amended) A method according to Claim 7 wherein a financial model of revenue, costs and profit is created.

13. (previously amended) A method in accordance with Claim 12 wherein at least one of ROI, ROC and IRR are determined for a capital investment.

14. (previously amended) A method in accordance with Claim 7 wherein a business goal is set and changes in process cost and time are calculated.

15. (previously amended) A method in accordance with Claim 7 wherein said method is further utilized to establish the cost of all work processes in said business.

16. (original) A method in accordance with Claim 1 wherein a utilization ratio of

said operator is calculated based on the total task time calculated to be necessary to complete all tasks in all work processes executed by said operator and the total time worked by said operator.

17. (previously amended) A method in accordance with Claim 16 wherein utilization ratios are used for the purpose of reallocating work from over-utilized operators to under-utilized operators.

18. (previously amended) A method in accordance with Claim 16 wherein utilization ratios are used for the purposes of bringing operators close to a 100% utilization ratio, thereby to improve quality of life.

19. (previously amended) A method in accordance with Claim 7 wherein said operation costs comprise department costs.

20. (previously amended) A method in accordance with Claim 7 wherein said operation costs comprise total business operating costs.

21. (previously amended) A method according to Claim 7 wherein revenue generated by said process is calculated and profitability of said work process is calculated based on the difference between said cost of said process and said revenue.

22. (original) A method according to Claim 1 wherein a difference between the calculated time to complete a task independent of the operator and the actual time taken by the

operator is used to establish a risk profile for the business, on the basis that a positive difference implies that work is not being carried out with the required care.

23. (original) A method according to Claim 1 wherein a difference between the calculated time to complete a task independent of the operator and the actual time taken by the operator is used to establish hidden liability of unperformed work, on the basis that a positive difference implies that tasks are being left incomplete.

Claim 24 was previously cancelled, without prejudice.

25. (previously added) A method according to claim 1, wherein said task cost is utilized with other task costs for activity based costing.

26. (previously added) A method according to claim 25, wherein the operator independent method of task time measurement is one selected from the group containing predetermined motion time system and Maynard Operation Sequence Technique.

27. (previously amended) A method according to claim 26, wherein the healthcare tasks comprise activities of a service business.

28. (previously amended) A method of activity based costing for a healthcare business having at least one group of healthcare tasks defining a work process, at least one of the healthcare tasks is executed by a human, the method comprising the step of determining the cost of the work process including the steps of:

calculating an expected duration of execution of the healthcare task(s) executed by the human operator using an operator independent method of task time measurement to be used to establish a first cost component;

said human operator using an operator independent method of task time measurement based on independently timing each motion in a procession of motions required to perform said healthcare task without timing from a beginning of said healthcare task to an end of said healthcare task a human performing said healthcare task;

establishing a second cost component of each healthcare task dependent on non-labor costs of the process, a portion of each non-labor cost being apportioned to said healthcare task as a function of the time of execution of said healthcare task by said human operator, machine operating time or other relative consumption of a resource;

maintaining the expected time to complete said activities and the cost per unit time of said operator in a memory of a computer and calculating by a processor of said computer a first cost component based on said expected time and said cost per unit time;

calculating a task cost independent of the efficiency of the human operator for each healthcare task using the processor of said computer including the step of summing the first and second components; and

calculating a total cost utilized to determine the cost of the work process, said calculating performed by using said processor of said computer for summing the costs of the healthcare tasks.